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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,020	04/11/2001	Nabil Hussein	032391-004	1314

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EXAMINER

SEMUNEGUS, LULIT

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 04/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,020

Applicant(s)

HUSSEINI ET AL.

Examiner

Lulit Semunegus

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 59-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 30, 2003 (paper # 16) have been fully considered but they are not persuasive.

Applicant has amended independent claim 59 to clarify that the method involves injection molding plastic around at least a portion of a *one-piece* projectile. Applicant argues that the prior art, Ringdal, involves molding or casting the front end of the case around a portion of a two-piece projectile (the projectile 7 and its envelope 9) and the projectile is only properly secured in place because the end 9 of the envelope of the projectile is bent over and embedded in the radial partition wall. Thus Ringdal does not anticipate claim 59 (page 3).

Examiner stance is that the reference Ringdal teaches a projectile 7 which is molded in a front end of a case 3 with a further feature of an envelope on the rear end of the projectile which is bent or flanged to obtain a secure and tight connection with the case (col. 1, lines 38-41). This feature is to additionally secure the connection between the case and the projectile and does not mean that it is the only means of attaching the projectile with the case. The main attachment of the projectile and the case is by molding (col. 1, lines 35-37). Furthermore, applicant's argument that Ringdal teaches a two-piece projectile is moot. Nowhere in Ringdal does it teach that the projectile is a two-piece. Ringdal teaches the invention having a rear end of the envelope of the projectile bent (col. 1, lines 38-41) but does not explicitly teach that the projectile is a two-piece projectile. If one was to consider the envelope to be an additional piece, it is

Art Unit: 3641

submitted that the “comprising” scope of the claim allows interpretation of the projectile to be a single piece projectile with an envelope around the single piece projectile.

Therefore, claim 59 and its dependent claims are rejected in view of Ringdal as shown below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 59 is rejected under 35 U.S.C. 102(b) as being anticipated by Ringdal (2,862,446). Ringdal teaches a method of making an ammunition article, comprising the steps of: molding plastic around at least a portion of a one-piece projectile (7, col. 1, lines 35-37) to form a plastic cartridge casing body (3) having a first end (3') to which the projectile is attached and a second end (1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringdal (2,862,446). Ringdal teaches all the limitations of claims 62-63 as applied to the claims 59 above, except the step of heat bonding or adhesive bonding the

Art Unit: 3641

projectile to the cartridge casing body. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to heat bond or adhesive bond the projectile to the cartridge casing body as a further step to the molding since it is well known in the art that any conventional method of securing the projectile, other than molding as taught by Ringdal, can be used to secure the projectile to the casing body.

6. Claims 60-61 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringdal (2,862,446) in view of Scanlon (3,745,924). Ringdal teaches all the limitations of claims 60-61 and 64 as taught in claim 59 above except a core pull. Scanlon teaches a core pull (36) having a first end (16) to which the projectile is attached and a second end (22), comprising a method of making an ammunition article which includes: a method of molding the plastic (col.4, line 60 until col.5 line 4) around the core pull such that the core pull and the projectile define an interior volume and a step of removing the core pull from the casing (fig. 8); and where the plastic is molded around the portion of the projectile that the plastic enters a recess in the portion of the projectile and forms a flange on the casing extending in the recess (fig. 1). At the time of the invention, it would have been obvious to one ordinary skilled in the art to have a core pull to create an even and consistent projectile.

7. Claims 65-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringdal (2,862,446) in view of Boutwell (3,144,827).

As to claims 65-67 and 69-77, Ringdal disclose all the limitations of claims 65-67 and 69-77 including a base 1 as applied to claim 59 above, except a base attached to the second end and steps of molding the base from plastic prior to attaching the base to

Art Unit: 3641

casing and various method of attaching the base to casing. Boutwell teaches an ammunition article comprising: a molded plastic cartridge case body (2, col. 2, line 17) having a closed front-end (6) that reduce in thickness and includes a stress concentrator for tearing of the closed front end (col. 1 line 70 to col. 2, line 6); a second end with a base (1) attached where the base is a molded plastic base (col. 2, lines 18-20) which can be replaceable and is attached mechanically by a locking mechanism (3,5); a primer (9); a propellant charge inside the cartridge casing body (col. 1, lines 68-69); and where the interior volume of the casing includes a first interior portion and a second interior portion where the second interior portion has a smaller diameter than the first interior portion and is separated by a shoulder (fig. 2). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a molded base attached with the casing for easier assembly and to perform consistently satisfactorily (col. 3, lines 7-19); and furthermore it would have obvious to a person of ordinary skill in the art to use different methods of attachment means to the base to the casing body such as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art.

As to claim 68, Ringdal and Boutwell teach the claimed invention as described above in claims 65-67 and 69-77, except for electronic ignition. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use electronic ignition instead of a primer for igniting the propellant for greater accuracy and consistent ignition.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (703) 306-5960. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

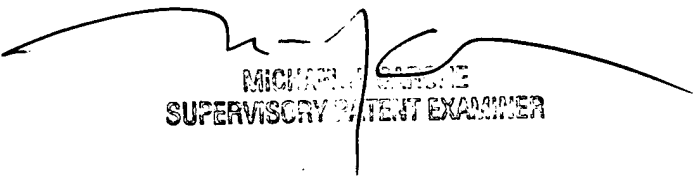
Art Unit: 3641

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.ls

April 8, 2003

Lulit Semunegus
Examiner
Art Unit 3641



MICHAEL J. CARLS
SUPERVISORY PATENT EXAMINER